

17 whereby the computer readable data structure means identifies which of the data  
18 records represent segments of roads located in any specified sub-area of any specified  
19 area.

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### **REMARKS**

This amendment accompanies the filing of a CPA and is in response to the Office Action dated December 19, 2000. In the Office Action, Applicant's Claims 1-22 were rejected as obvious over U.S. Pat. No. 5,808,566 ("Behr").

#### **I. Interview on February 22, 2001**

An interview was held on February 22, 2001 to discuss the Office Action, dated December 19, 2000. Attending the interview were Examiner Colbert and the undersigned. The undersigned extends his sincere appreciation to the Examiner for her helpful suggestions and comments during the interview. The Interview Summary prepared by the Examiner fairly described the issues that were discussed.

In the interview, Examiner Colbert and the undersigned discussed Applicant's Claims 1 and 12, the Behr prior art reference, and how the Examiner interpreted the limitations in Applicant's claims to read on the Behr prior art reference. At the interview, the undersigned indicated that a CPA would be filed and that the CPA would be accompanied by an amendment that would include the claim amendments that were discussed at the interview.

Applicant does not agree with the Examiner that the original claims of the present application were obvious over the Behr patent. However, in the interest of expediting prosecution and allowance of the present application, Applicant has cancelled all the independent claims of the present application and replaced them with new independent claims. These new claims incorporate the Examiner's suggestion that the claims bring out more clearly the inventive aspects of Applicant's disclosed subject matter.

The dependent claims have also been amended to now depend from the new base claims and to conform to any new language in their respective base claims.

## II. Applicant's Claim 23 distinguishes Behr

None of the pending claims in the present application are obvious over Behr. By way of example, the following table illustrates some of the ways that Applicant's Claim 23 distinguishes the Behr patent.

<u>Passages from Applicant's Claim 23</u>	<u>Behr</u>
1. "A method for producing a database"	Behr does not disclose <u>how</u> a database is produced.
2. "separating a plurality of data entities that represent the geographic features into a plurality of parcels . . . wherein each parcel of said plurality of parcels contains a separate subset of said plurality of data entities"	Behr does not disclose that the data that represent geographic features are <u>separated</u> in any way.
3. "wherein the subset of said plurality of data entities contained in each parcel represents the geographic features located in a separate one of a plurality of areas into which the geographic region is divided"	Behr does not disclose that the " <i>parcels</i> " into which the " <i>data in the database</i> " are separated are based upon <u>where</u> the geographic features represented by the data are located.
4. "dividing the area associated therewith into a plurality of sub-areas"	Behr does not disclose that the " <i>area</i> " associated with each parcel is further divided into " <i>sub-areas</i> ."
5. "storing a first index that identifies, for each of the data entities contained in the parcel, each of the sub-areas formed of the area associated with the parcel intersected by the geographic feature represented thereby"	Behr does not disclose that each parcel has a " <i>first index</i> " that identifies, for each data entity in the parcel, which of the " <i>sub-areas</i> " contains the geographic feature represented by the data entity.

As shown in the table, Applicant's Claim 23 includes at least five features that are neither disclosed nor suggested by the Behr patent. The other pending claims likewise include limitations that are neither disclosed in nor suggested by the Behr patent.

## III. Second Information Disclosure Statement

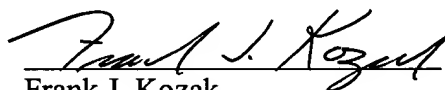
Also accompanying the filing of this CPA is a SECOND INFORMATION DISCLOSURE STATEMENT and the form PTO-1449. At the interview on February

22, 2001, Examiner Colbert provided the undersigned with copies of U.S. Pat. No. 4,888,698, U.S. Pat. No. 6,058,390 and a publication entitled "Comparative Benefits of Various Automotive Navigation and Routing Technologies." Applicant had already cited U.S. Pat. No. 4,888,698 to the Examiner in the first Information Disclosure Statement filed by Applicant on May 15, 1998. Applicant has listed the other two references received from the Examiner on the enclosed form PTO-1449. Applicant has also listed two additional references on the form PTO-1449 for the Examiner to review. The Examiner is kindly requested to make all the references listed on the enclosed form PTO-1449 of record in the present application by initialing the appropriate locations on the form. Applicant submits that none of these references, taken alone or in proper combination with other cited references, discloses or suggests the subject matter claimed by Applicant.

**IV. Conclusion**

With this response, all the issues in the Office Action mailed December 19, 2000 have been addressed. The present application has been placed in condition for allowance. If any issues remain, the Examiner is invited to call the undersigned at the telephone number indicated below.

Respectfully submitted,



Frank J. Kozak  
Reg. No. 32,908  
Chief Patent Counsel

NAVIGATION TECHNOLOGIES CORPORATION  
10400 West Higgins Road  
Rosemont, IL 60018  
(847) 795-7000 x7371

## MARKED-UP VERSIONS

### IN THE CLAIMS (marked-up versions):

Please amend Claims 2-5, 8-10, 13-15, 17, 19 and 20, as indicated.

1           2.       (Amended)   The method of Claim [1] 23 wherein said first index is a  
2   bitmap.

3

1           3.       (Amended)   The method of Claim [1] 23 wherein each of the plurality  
2   of sub-areas is [a sub-rectangle] rectangular.

1           4.       (Amended)   The method of Claim [1] 23 wherein said first index is  
2   stored internally of [each of said parcels] the parcel associated therewith.

3

1           5.       (Amended)   The method of Claim [1] 23 further comprising:  
2       with respect to each of said parcels, storing a second index identifying boundaries  
3   of each of said plurality of sub-areas.

4

1           8.       (Amended)   The method of Claim [1] 23 wherein with respect to each  
2   parcel, the data entities that represent geographic features encompassed by each of said  
3   plurality of sub-areas are approximately equal in number to the data entities that represent  
4   geographic features encompassed by each of the other of the plurality of sub-areas.

5

1           9.       (Amended)   The method of Claim [1] 23 wherein the data entities  
2   represent segments of roads in the geographic region.

3

1           10.      (Amended)   The method of Claim [1] 23 wherein the step of  
2   [determining] dividing forms [a plurality of sub-areas each of which encompasses some  
3   of the geographic features represented by the data entities contained in said parcel is  
4   further characterized as comprising:

5       determining] eight sub-areas.

6

1           13.     (Amended)   The method of Claim [12] 25 wherein said data entities  
2 represent segments of roads.

1           14.     (Amended)   The method of Claim [12] 25 wherein the first index is a  
2 kd-tree index.

1           15.     (Amended)   The method of Claim [12] 25 wherein the second index is a  
2 bitmap.

1           17.     (Amended)   The invention of Claim [16] 26 further comprising:  
2           a plurality of index tables of a second type, each of which is associated with a  
3 separate respective one of said plurality of parcels, wherein each of said index tables of  
4 the second type comprises:  
5                     a reference to each of a plurality of separate sub-areas into which the area  
6                     associated with the respective parcel is divided.

1           19.     (Amended)   The invention of Claim [18] 27 wherein [each of said  
2 groupings] the sub-areas associated with each parcel [in each of said subsets is] are  
3 spatially organized.

1           20.     (Amended)   The invention of Claim [18 ] 27 wherein [each of said  
2 groupings of] the data entities associated with each rectangular sub-area are [within each  
3 parcel include] approximately [a] similar in number [of data entities as] to each [of the]  
4 other [groupings within the parcel].